UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,833	08/04/2003	Etsuro Endo	P/2291-110	5261

			EXAMINER
2352	7590	01/25/2006	RIVERO, ALEJANDRO

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ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 August 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04 August 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

The following title is suggested: "METHOD AND DEVICE FOR CONTROLLING

THE POWER SUPPLY OF A SUBCONTROLLER USING A MONITORING TASK AND

A PREDETERMINED TIME-OUT PERIOD".

2.   The disclosure is objected to because of the following informalities:

In page 2 line 20, replace "control" with "controlling". In page 3 line 11, replace

"allow" with "allows". In page 13 line 25, replace "cub CPU" with "sub CPU".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 10, 11 and 12 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter. Claims to computer data structures

and programs per se are not statutory subject matter and are ineligible for patenting.

See MPEP 2106 IV B 1(a). On the other hand, a claim to a tangible computer-readable

medium encoded with a computer data structure or program is eligible statutory subject

matter, i.e. it is one of the four categories of enumerated subject matter, because it is a

computer element which defines structural and functional interrelationships between the

computer program and other components of a computer which permit the computer

program's functionality to be realized. For the purpose of this examination claims 10-12

will be interpreted as relating to a computer-readable medium encoded with a computer

data structure or program instructing a computer to implement a power supply control

method.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
obviousness or nonobviousness.

6.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Zhou et al. (US 2003/0003973 A1) in view of Cannon (WO 94/17502, cited in applicant's

IDS).

Consider claim 1, Zhou et al. disclose a power supply control method in a

portable communication device provided with a plurality of controllers including a main

controller (control portion) and a sub controller (cellular radio device) for controlling

external communication (Abstract, figure 1 elements 1, 3 and 4), comprising the steps

of: a) checking whether the sub controller is performing the external communication

(Paragraphs [0016] and [0035]); and b) when the external communication has not been

performed powering off the sub controller (Abstract, figure 1 elements 1, 3 and 4,

paragraphs [0016] and [0035]).

However, Zhou et al. do not disclose a predetermined time-out period.

Cannon discloses a predetermined time-out period (Abstract, page 2 lines 1-19).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to use a predetermined time-out period as taught by Cannon in the

method of Zhou et al. in order to respond to a need to communicate with the external

device during the predetermined time-out period and disconnect power when the time-

out period expires in order to save power (as suggested by Cannon in page 1 lines 13-

32, page 2 lines 1-19, and as suggested by Zhou et al. in paragraph [0012]).

Consider claim 2, Zhou et al. as modified by Cannon disclose all the limitations

as applied to claim 1 above and also disclose wherein the external communication is

radio communication with a mobile communications system for location registration of

the portable communication device (Paragraph [0016], of Zhou et al.).

Consider claim 3, Zhou et al. as modified by Cannon disclose all the limitations

as applied to claim 1 above and also disclose wherein the external communication is

wired communication with an external information processing device through an

external connector (Page 5 lines 20-26, page 6 lines 31-35, figure 1 elements 101, 103,

118, 128 and 119, of Cannon).

Consider claim 6, Zhou et al. disclose a power supply control system in a portable communication device provided with a plurality of controllers including a main controller (control portion) and a sub controller (cellular radio device) for controlling external communication (Abstract, figure 1 elements 1, 3 and 4), comprising: operation check means for checking whether the sub controller is performing the external communication (Paragraphs [0016] and [0035]); and power control means controlling power supply of the sub controller such that the sub controller is powered off when the external communication has not been performed (Abstract, figure 1 elements 1, 3 and 4, paragraphs [0016] and [0035]).

However, Zhou et al. do not disclose a predetermined time-out period.

Cannon discloses a predetermined time-out period (Abstract, page 2 lines 1-19).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a predetermined time-out period as taught by Cannon in the method of Zhou et al. in order to respond to a need to communicate with the external device during the predetermined time-out period and disconnect power when the time-out period expires in order to save power (as suggested by Cannon in page 1 lines 13-32, page 2 lines 1-19, and as suggested by Zhou et al. in paragraph [0012]).

Consider claim 9, Zhou et al. disclose a portable communication device comprising: a radio communication section for communicating with a base station of a mobile communication system (Abstract, figure 1 elements 1, 3 and 4, figure 2 element 44); a main CPU for controlling an entire operation of the portable communication device (Abstract, paragraph [0035], figure 1 elements 1, 3 and 4, figure 2 element 50); a

sub CPU for controlling external communication (Abstract, figure 1 elements 1, 3 and 4,

figure 2 elements 57 and 58); a dual port memory connected to the main CPU at one

port and connected to the sub CPU at the other port, for transferring messages between

the main CPU and the sub CPU (Paragraph [0035], figure 2 elements 50, 51, 52, 53,

57, 58 and 59, where Zhou et al. disclose the main CPU 50 and the power control

portions 57 and 58 are both connected to memory elements using bus 59), wherein the

main CPU implements: operation check means for checking whether the sub controller

is performing the external communication (Paragraphs [0016] and [0035]); and power

control means controlling power supply of the sub controller such that the controller is

powered off when the external communication is not been performed (Abstract, figure 1

elements 1, 3 and 4, paragraphs [0016] and [0035]).

However, Zhou et al. do not disclose wherein the main CPU implements a

predetermined time-out period and wherein the sub controller implements: response

means for sending the operation check response back to the main controller when the

external communication is being performed.

Cannon discloses wherein the main CPU implements a predetermined time-out

period and wherein the sub controller implements: response means for sending the

operation check response (retry request) back to the main controller when the external

communication is being performed (Abstract, page 2 lines 1-19, figure 1 elements 119

and 128).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to use a predetermined time-out period as taught by Cannon and

response means for sending the operation check response back to the main controller

when the external communication is being performed, also taught by Cannon, in the

method of Zhou et al. in order to respond to a need to communicate with the external

device during the predetermined time-out period and disconnect power when the time-

out period expires in order to save power (as suggested by Cannon in page 1 lines 13-

32, page 2 lines 1-19, and as suggested by Zhou et al. in paragraph [0012]).

Consider claim 10 and the 35 U.S.C. 101 rejection above, Zhou et al. disclose a

computer program (control program) instructing a computer implement a power supply

control method in a portable communication device provided with a plurality of

controllers including a main controller and a sub controller for controlling external

communication (Abstract), the program comprising the steps of: checking whether the

sub controller is performing the external communication and powering off the sub

controller (Paragraphs [0016] and [0035]).

However, Zhou et al. do not disclose adjusting the power when the external

communication has not been performed for a predetermined time-out period.

Cannon discloses adjusting the power when the external communication has not

been performed for a predetermined time-out period (Abstract, page 2 lines 1-19).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to adjust the power when the external communication has not been

performed for a predetermined time-out period as taught by Cannon in the method of

Zhou et al. in order to respond to a need to communicate with the external device during

the predetermined time-out period and disconnect power when the time-out period

expires in order to save power (as suggested by Cannon in page 1 lines 13-32, page 2 lines 1-19, and as suggested by Zhou et al. in paragraph [0012]).

Consider claims 4, 7, 11 and the 35 U.S.C. 101 rejection above, Zhou et al. as modified by Cannon disclose all the limitations as applied to claims 1, 6 and 10 above and also disclose wherein the operation check means sends an operation check request (attempt to communicate) to the sub controller when an operation check timer is reset for the predetermined time-out period (Abstract, page 2 lines 1-19 of Cannon, reads on claims 4, 7 and 11), and determines whether an operation check response (retry request) to the operation check request is received from the sub controller (Abstract, page 2 lines 1-19 of Cannon, reads on claims 4, 7 and 11), and the power control means powers off the sub controller (Paragraphs [0016] and [0035] of Zhou et al., reads on claims 4, 7 and 11) when the operation check response is not received from the sub controller within the predetermined time-out period (Abstract, page 2 lines 1-19 of Cannon, reads on claims 4, 7 and 11), and keeping the sub controller powered on when the operation check response is received from the sub controller within the predetermined time-out period (Abstract, page 2 lines 1-19 of Cannon, reads on claims 4, 7 and 11).

Consider claims 5, 8, 12 and the 35 U.S.C. 101 rejection above, Zhou et al. as modified by Cannon disclose all the limitations as applied to claims 4, 7 and 11 above and also disclose implementing at least an external interface task (attempt to communicate) and timer handler (predetermined response time period) in the main controller (Abstract, page 2 lines 1-19 of Cannon, reads on claims 5 and 12); and

implementing at least an external communication monitoring task the sub controller,

wherein the external interface task sends operation check request when timer handler

starts operation check timer (Abstract, page 2 lines 1-19 of Cannon, reads on claims 5

and 12) and, when the operation check response is not received from the sub controller

within the predetermined time-out period(Abstract, page 2 lines 1-19 of Cannon, reads

on claims 5 and 12), powers off the sub controller (Paragraphs [0016] and [0035] of

Zhou et al., reads on claims 5 and 12), wherein the external communication monitoring

task sends the operation check response back to the external interface task when the

external communication is being performed (Abstract, page 2 lines 1-19 of Cannon,

reads on claims 5, 8 and 12).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alejandro Rivero whose telephone number is (571) 272-

2839. The examiner can normally be reached M-F, 8:30AM-5:00PM. If attempts to

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay

Maung can be reached on (571) 272-7882. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300. Information

regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may

be obtained from either Private PAIR or Public PAIR. Status information for

unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center (EBC) at

866-217-9197 (toll-free).

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NICK CORSARO
PRIMARY EXAMINER